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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/021,253

12/13/2001

Jic Bian

384.7469USU

3845

7590

07/26/2007

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EXAMINER

TROTTER, SCOTT S

ART UNIT

PAPER NUMBER

3694

MAIL DATE

DELIVERY MODE

07/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/021,253	<b>Applicant(s)</b> BIAN, JIE	
	<b>Examiner</b> Scott S. Trotter	<b>Art Unit</b> 3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of the Claims***

1. This action is in response to the response filed on 4/30/07. Claims 1-14 are pending and are examined.

### ***Response to Arguments***

2. Applicant's arguments filed April 30, 2007 have been fully considered but they are not persuasive.

Regarding Kwon not teaching scoring. The broadest reasonable interpretation of scoring is sorting things into groups. When Kwon puts a company in a good group it is giving it a good score and when putting it in a bad group it is giving a bad score.

Regarding Tom not teaching outputting a score to a user it wasn't cited for that but for outputting the results of a neural network to a user. Kwon provided the neural network that did grouping/scoring.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon and Feroz (IEEE Transactions on Neural Networks, Vol. 7, No. 5, September 1996 hereafter Kwon) in view of Tom (US Patent 5,696,907).

As per claim 1, Kwon teaches:

A system for providing a user with a higher risk score indicating the likelihood that a business under inquiry by the user may be involved in questionable activity (See *Abstract*) the system comprising:

- a. means for evaluating how closely the profile of the business under inquiry matches those of businesses already confirmed as higher risk (See *III. Methodology*)
- b. wherein the means for evaluating comprise a neural network model is capable of capturing the way multiple data elements inter-relate and thereby of recognizing patterns indicative of questionable activity; (See *III. Methodology B. Neural-Network Architecture*)
- c. means for producing the higher risk score based on the results of an evaluation performed by the evaluating means; and
- d. means for transmitting a report including the higher risk score to the user.

While Kwon does not explicitly teach a means for transmitting a report of a risk to the user Tom teaches using a computer system to have a neural net analyze a problem and output the results to the user. (See *Column 3 Lines 53-55 "output device such as a display and printer"*) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to put Kwon's system for finding suggestions of financial fraud into Tom's computer system because Tom called for the application of neural nets to commercial credit evaluation. (See *Column 7 Lines 34-35.*)

As per claim 5 Kwon teaches:

A system, as defined in claim 4, including means for identifying the patterns of questionable activity. (*See Abstract*)

As per claim 8 Kwon teaches:

A system as defined in claim 1, wherein the evaluated business is given different scores based on how closely its patterns match those of confirmed risk businesses. (*See Abstract*)

5. As per claims 2, 3, 4, 6, and 7 Kwon teaches a system for providing risk score as discussed in claim 1. Kwon does not specifically teach the distinctions as cited in claims 2, 3, 4, 6, and 7. However, Tom teaches:

Regarding claim 2: A system, as defined in claim 1, including the variables (a) History Indicator (*See Column 4 Lines 58-59*), (i) Ownership of Facility (*See Column 4 Line 46*), and (l) Inquiry Spike (*See Column 4 Lines 51-53*).

As per claim 3, Tom teaches: A system, as defined in claim 1, further comprising a network (a network is defined by Webster's as a means for connecting computers together; as shown by Figure 1 there must be a means of connecting the computers.) and, connected to the network, a programmed computer (*See Column 3 Lines 46-49*), a user interface (*See Column 3 Lines 51-55*), a means for gathering data elements concerning a plurality of businesses (*See Column 53-55*), a database having a record of the businesses appended with their respective data elements in the form of variables (*See Figure 1 element 14*), or data elements, wherein the neural data elements, assigns weights to the elements to produce a weighted sum (*See Column 3 Lines 1-4*) wherein higher weighted sums meaning a higher high risk score. (The neural nets are optimized

to produce a result indicating whether an individual is a good credit risk for this transaction.) As per claim 4 Tom teaches: A system, as defined in claim 3, providing means for feeding the data elements into the neural network model. (*See Figure 1*) As per claim 6 Tom teaches: A system, as defined in claim 5, including means for assigning weights to the data elements to produce a weighted sum. (*See Column 6 Lines 7-25*) As per claim 7 Tom teaches: A system, as defined in claim 6, providing means for calculating a weighted sum. (*See Column 7 Lines 7-25*) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to put Kwon's system for finding suggestions of financial fraud into Tom's computer system because Tom called for the application of neural nets for credit evaluation (*See Column 7 Lines 34-35*) which is something that Kwon has a major effect on since an SEC investigation can destroy a company.

As per claim 9, see the rationale of claim 1.

As per claim 10, see the rationale of claim 2.

As per claim 11, see the rationale of claim 4.

As per claim 12, see the rationale of claim 5.

As per claim 13, see the rationale of claim 6.

As per claim 14, see the rationale of claim 7.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Examiner's Note: The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

***Inquire***

8. Any inquiry concerning this communication from the examiner should be directed to Scott S. Trotter, whose telephone number is 571-272-7366. The examiner can normally be reached on 8:30 AM – 5:00 PM, M-F.

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9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell, can be reached on 571-272-6712.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11. The fax phone number for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300	(Official Communications; including After Final Communications labeled "BOX AF")
(571) 273-6705	(Draft Communications)

Scott Trotter  
7/18/2007

  
ELLA COLBERT  
PRIMARY EXAMINER